

Physical Measurements of Biological Membranes

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Abstract

In our Biomembrane Physics laboratory in the Physics Department at IUPUI, we use a number of experimental methods to determine the physical properties of biological membranes. These methods include X-ray scattering, NMR spectroscopy, and measurements of ion channel activities. Most projects are interdisciplinary and include students in physics, chemistry, biology, and engineering. We will present highlights from these projects and show how students with different backgrounds can work together to solve problems that require a broad range of skills, from molecular biology to physical measurements and theoretical analysis.